

Miguel PEETERS
Appl. No. 09/686,784

Amendments to the Specification

Please substitute the following paragraph for the paragraph on Page 2, lines 23-25:

A1 *Sub B17*
The multi-band signal may be generated by nulling selected tones in the modulator. In addition to [[. Or]] or alternatively, the multi-band signal may be generated by filtering the output of the modulator.

Please substitute the following paragraph for the paragraph on Page 3, lines 13-15:

A2 *Sub B2*
The multi-band signal may be generated by nulling selected tones in the modulator. In addition to [[. Or]] or alternatively, the multi-band signal may be generated by filtering the output of the modulator.

Please substitute the following paragraph for the paragraph on Page 4, lines 17-28:

A3 *Sub B3*
In accordance with known techniques, the transmitter of the first modem 214 includes an inverse discrete Fourier transform 204, a digital to analogue converter 218-208, and a hybrid 212. As the transmitter described herein is a DMT transmitter, there is also provided a cyclic prefix (CP) insertion block 205. The inverse discrete Fourier transform (IDFT) block 204 receives on a plurality of signal lines 202 data to be encoded for transmission. The thus encoded data is output by the IDFT block 204 in series on line 207. The operation of the IDFT

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block 204 is outside the scope of the present invention, and its implementation will be well known to one skilled in the art. The CP insertion block inserts a 32 sample guard band in front of the 512 sample symbols generated by the IDFT. As known in the art, the CP insertion includes repeating the last 32 sample of the 512 sample symbol to thereby generate a 544 sample symbol.

A3
cont

Please substitute the following paragraph for the paragraph on Page 7, lines 11-14:

A4
Sub 204

As shown in Figure 4, the receiver 224a comprises a time equaliser 234a, a subtractor 238a, a cyclic prefix removal block 239a, a discrete Fourier transform (FFT) 244a, a frequency equaliser 248a, and an echo canceller 242a. In this preferred embodiment, the echo canceller 242a is comprised of an adaptive filter.

Please substitute the following paragraph for the paragraph on Page 7, lines 18-28:

A5
cont
Sub 205

The digitised version of the received signal for the particular frequency band is provided on line 223a by a respective one of either the digital or analogue splitters of Figures 3(a) and 3(b). In accordance with conventional techniques, the echo canceller 242a preferably comprises an adaptive filter and receives a representation on line 225-227 of the signal in the transceiver for the modem 218 which is being transmitted by the hybrid 220. The echo canceller 242a then provides an estimate of the echo associated with this transmitted signal on line 262a. The subtractor 238a subtracts the estimate of the echo on line 262a from

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the time equalised received signal on line 236a, to generate an estimate of the received signal on line 240a. As is known in the art, the signal on line 240a is used to control the echo canceller 242a to adjust the estimate of the echo on line 262a.

AS
C&C